



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/462,381	03/27/2000	GIUSEPPE DI SILVESTRO	022701-859	5018
21839	7590	10/30/2003	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			WYROZEBSKI LEE, KATARZYNA I	
POST OFFICE BOX 1404			ART UNIT	PAPER NUMBER
ALEXANDRIA, VA 22313-1404			1714	

DATE MAILED: 10/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/462,381	DI SILVESTRO ET AL.	
	Examiner	Art Unit	
	Katarzyna Wyrozebski Lee	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-16 is/are allowed.
- 6) ☒ Claim(s) 17-21, 23, 25-27 and 30 is/are rejected.
- 7) ☒ Claim(s) 22, 24, 26, 28 and 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

In view of applicant's request for continuing prosecution (CPA) filed on 10/17/2002 following non-final office action has been necessitated. The examiner acknowledges receipt of Affidavit concerning unexpected results over the prior art of Ahroni signed by Mr. Giuseppe Di Silvestro on July 9, 2003 and submitted to USPTO on July 23, 2003. Claims 1-30 are pending.

In view of applicant's affidavit and arguments, 103 rejections of record over the prior art of Ahroni are overcome. The prior art of AHRONI no longer anticipates claim 1 as the present invention utilizes linear monomers that are not aromatic. Claim 17 however, is still rejected over AHRONI, as the di-functional monomer can be aromatic.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 17-21, 23, 25, 27, 30 are rejected under 35 U.S.C. 102(b) as being anticipated by AHRONI (US 5,493,000).

The prior art of AHRONI discloses formation of polyamides with polyfunctional branching monomer having formula $B_{2c}-R_2-A_{2d}$ (col. 2). Considering applicant's polyfunctional

Art Unit: 1714

monomer and applicant's possibility that R_1 and R_2 be covalent bonds, the chemical formula of AHRONI satisfies the formula of the present invention. The examples of the prior art of AHRONI teach use of diaminobenzoic acid and aminobenzoic acid as linear unit with monofunctional monomers being optional. In example II of AHRONI (Col. 21) the ratio of polyfunctional monomer to di-functional monomer is 0.1:0.1, which is 1:1. Example 1 of AHRONI teaches use of aminoisophthalic acid. The polycondensation reactions in the prior art of AHRONI are done in presence of condensation catalyst. R_2 of the prior art of AHRONI can also contain more than one aromatic ring, such as naphthyl or biphenyl (col. 2, lines 33-35). Resulting polymer of AHRONI has nitrogen and oxygen in polymer chain, wherein both are considered heteroatoms.

In the light of the above disclosure, the prior art of AHRONI anticipates requirements of claims rejected above.

In the argument mailed on 6/16/2003 the applicants have argued following:

Ahroni does not, however, disclose or suggest the copolyamide of the present invention. That is, when the linear monomer, branching monomer and extension monomer of Ahroni are itaconic acid, 5-aminoisophthalic acid and p-aminobenzoic acid as set forth in the Examples of Ahroni, the two-dimensional representation of the resulting fractal

With respect to the above argument, the examples to which the applicant refer first makes the polyamide by reacting, see for example Example II of Arhoni, in 1:1 ratio diaminobenzoic acid with aminobenzoic acid. Since claim 17 of the present invention allows for the linear monomers to be aromatic, the prior art of AHRONI still anticipates claim 17 of the present invention.

Art Unit: 1714

More specifically, the data presented in the attached Declaration show that the *Aharoni* polymer blend is rigid and cannot be used as a thermoplastic polymer matrix by itself. Further, the data in the attached Declaration clearly indicate that the tree copolyamide of the present invention differs substantially in terms of its structural, chemical and physical properties when compared with the blends of *Aharoni*. That is,

With respect to the above argument, the declaration or affidavit can not overcome 102 type rejections.

cannot be used as a matrix alone. Further, while the copolyamide of the present invention has a high melt viscosity, the blend of *Aharoni* has high melt fluidity. Additionally, the

The melt viscosity of the polymer is not a limitation of claim 17.

has a high melt viscosity, the blend of *Aharoni* has high melt fluidity. Additionally, the chemical structure of the tree copolyamide of the present invention is substantially different from chemical structure of the linear polymer of *Aharoni* (see Figure 1 vs. Figure 2 in the

The monomeric components of the prior art of AHRONI satisfy the monomeric requirements of the present invention, when R_1 and R_2 of the present invention are covalent bonds.

Allowable Subject Matter

3. Claims 1-6 are allowed. The prior art of AHRONI does not teach use of aliphatic or cycloaliphatic monomers. Submitted declaration obviates 103 rejections.

4. Claims 22, 24, 26, 28 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

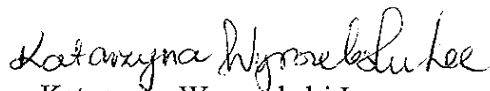
Art Unit: 1714

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Further cited disclosures, although applicable against present claims do not qualify as a prior art for date purposes US 6,541,600 to WANG, US 2003/0176593 to BORDES. Prior art of FISCH (US 5,760,163) would have been applied in a 103 type rejection, however, applicants provided affidavit that overcomes rejection that would applied as a combination with a prior art of AHRONI.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski Lee whose telephone number is (703) 306-5875. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Katarzyna Wyrozebski Lee
Primary Examiner
Art Unit 1714

October 27, 2003